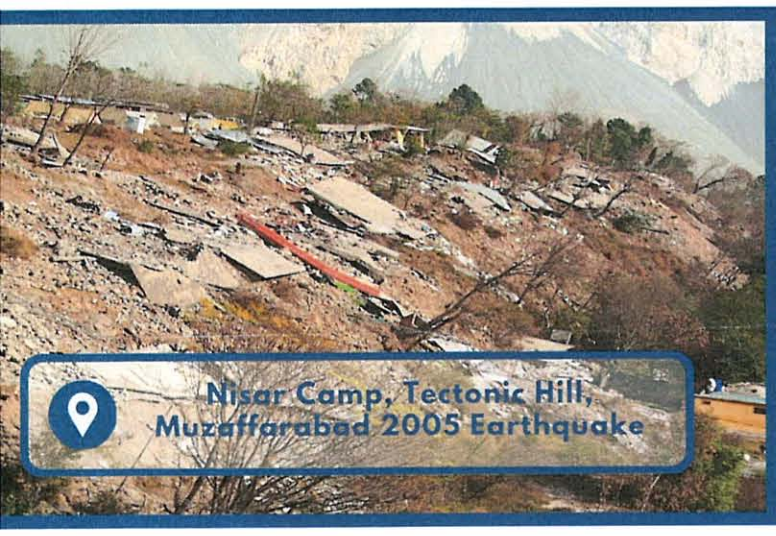
INTERNATIONAL CONFERENCE ON

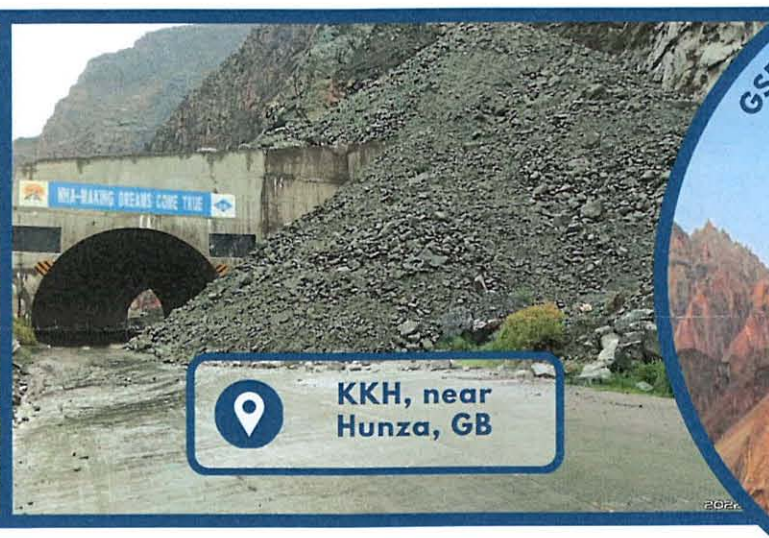
GEOLOGICAL HAZARDS IN PAKISTAN

27-28 MAY 2025 ISLAMABAD

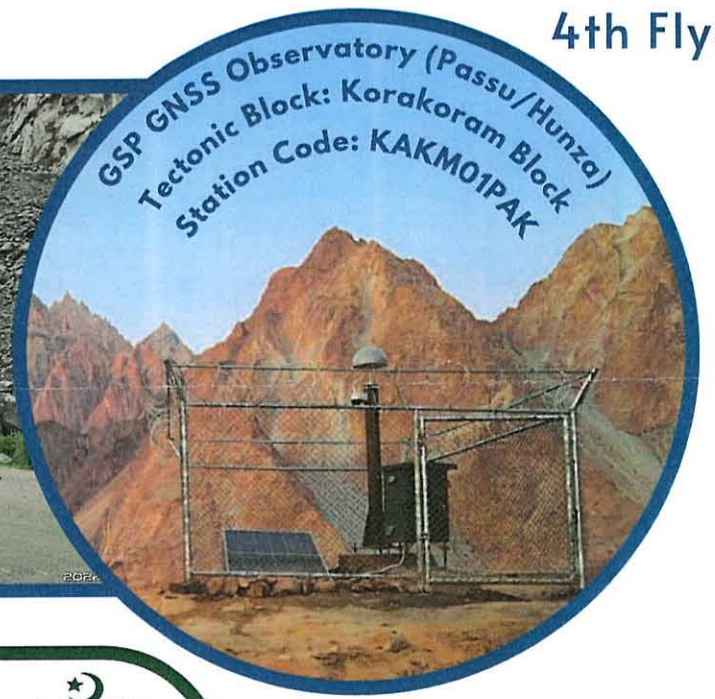
4th Flyer



Nisar Camp, Tectonic Hill, Muzaffarabad 2005 Earthquake



KKH, near Hunza, GB



PAKISTAN NATIONAL RESEARCH PROGRAM ON GEOLOGICAL HAZARDS (EARTHQUAKES & LANDSLIDES) DATA ACQUISITION ALONG ACTIVE FAULTS AND IDENTIFICATION OF POTENTIAL LANDSLIDE HOTSPOT ZONES

THEMES

- Research on seismic hazard assessment and mitigation in tectonically active regions; geological insights and challenges: global and regional perspectives.
- Application of geospatial technologies (GNSS and InSAR data) in plate tectonics (earthquake studies).
- Sustaining GNSS CORS network; challenges, innovations and future strategies.
- Building Codes of Pakistan; methods, analysis & fault line data base.
- Climate change impact on mass movement/landslide hazards.

Geological Survey of Pakistan (GSP), being the premier organization in the geoscience research in the country, is responsible for the development and advancement of earth sciences in Pakistan. GSP is organizing an international conference on geological hazards (earthquakes and landslides) in Pakistan, to encourage research in assessment and mitigation of geological hazards and countering the adverse effects of climate change. The conference aims to bring together international experts to share knowledge and experience on geological hazards, with a special focus on use of Global Navigation Satellite System (GNSS) technology. The conference will foster research collaboration and sharing of the ideas to enhance disaster preparedness capabilities against these natural disasters. Through discussion and knowledge sharing, we seek to foster a culture of resilience and safeguard the communities from the devastating impacts of geological hazards.

For Registration Scan the QR or Visit the Site below:

https://gsp.gov.pk/

IMPORTANT DATES:

Application submission deadline:	05 May, 2025
Abstract, Manuscript, Poster submission deadline:	05 May, 2025
Conference date:	27-28 May, 2025
Field trip (optional):	29 May-03 June, 2025

Patronage:
Dr. Sajjad Ahmad
Director General
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GSP 84, Street No. 03, Sector H-8/1, Islamabad, Pakistan.

Convener:
Mr. Adnan Alam Awan
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70°0'0"E

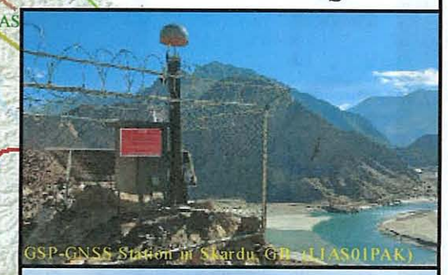
GSP PERMANENT GNSS NETWORK

ALONG MAJOR FAULT LINES IN PAKISTAN

S. No	Name	Tectonic Zone	Major Fault Lines	Location	Lat/Long
1	KAKM01PAK	Karakoram Block	Hunza Fault kilik Fault	Hunza, GB	36.453°N 74.897°E
2	HNDK01PAK	Hindukush Block, (Chitral TirichMir fault zone)	Tirichmir Fault /Reshun Fault /MKT	Chitral, KPK	35.984°N 71.551°E
3	KIAG01PAK	Kohistan Island Arc	MKT/MMT	Gilgit, GB	35.914°N 74.408°E
4	NPHM01PAK	Nanga Parbat Haramosh Massif (MMT zone)	MMT	Skardu, GB	35.494°N 74.760°E
5	LIAS01PAK	Ladakh Island Arc	MKT, MMT	Ghanche, GB	35.230°N 75.942°E
6	HZKS01PAK	Hazara Kashmir Syntaxis,	MBT/Punjal Thrust	Muzaffarabad, AJK	34.401°N 73.501°E
7	WRSK01PAK	Peshawar Basin or Himalayas Inner Zone	MMT/ MBT	Peshawar, KPK	34.153°N 71.392°E
8	ATBD01PAK	Hazara Basin, (Himalayas outer zone)	Panjal/ Nathia Gali fault	Haripur, KPK	34.627°N 73.145°E
9	ISLB01PAK	Northern Potwar Zone	MBT/NGT/Punjal Thrust	Islamabad	33.768°N 73.0778°E
10	JHEL01PAK	Sub- Himalayas	Jhelum Fault	Kotli, AJK	33.063°N 74.135°E
11	KTAS01PAK	Eastern Salt Range	HFT/Jhelum, Fault	Chakwal, Punjab	32.723°N 72.965°E
12	AMBS01PAK	Central Salt Range	HFT	Khushab, Punjab	32.509°N 71.9496°E
13	SRTW01PAK	Western Salt Range	HF/ Kalabagh	Mianwali, Punjab	32.680°N 71.789°E
14	INDS01PAK	Kirana Hills/ Indian Shield Rocks	HFT/Sargodha/Shahpur buried fault	Sargodha, Punjab	31.856°N 72.792°E
15	ZHOB01PAK	Khanozai, Zhob Ophiolitic belt	Khazaband Fault	Zhob, Balochistan	31.318°N 69.496°E
16	SUKK01PAK	Zone of Up&Down Wrap	Sukkur Rift	Sukkur, Sindh	27.661°N 68.902°E
17	NGPK01PAK	Nargarparker shield rocks	Buried Fault	Nagarpakar, Sindh	24.375°N 70.784°E
18	QUTA01PAK	Axial Belt	Chaman Fault /Ghazaband Fault	Quetta, Balochistan	30.181°N 67.027°E
19	SWAT01PAK	MMT ZONE	MMT ZONE	SWAT, KPK	34.881 °N 72.453°E
20	DGKN01PAK	Suleiman Fold and Thrust Belt	Kingri fault	DG Khan, Punjab	29.973°N 69.978°E

GEOLOGICAL SURVEY OF PAKISTAN

Pakistan National Research Program on Geological Hazards (Earthquakes & Landslides) Data Acquisition along Active Faults and Identification of Potential Landslide Hotspot Zones



Legends:

GSP Permanent GNSS Stations:

Major Fault Lines

(1) KkF	Karakuram Fault	(23) BrF	Barkhan Fault
(2) KlF	Kilik Fault	(24) KhF	Khilafat Fault
(3) TmF	Tirich mir Fault	(25) HrF	Hernai Fault
(5) RsF	Reshun Fault	(26) AwF	Ahmadwal Fault
(4) HzF	Hunza Fault	(27) ChmF	Chaman Fault
(6) MKT	Main Karakuram Thrust	(28) SdF	Saindak Fault
(7) MMT	Main Mantle Thrust	(29) PgF	Panjgur Fault
(8) MCT	Main Central Thrust	(30) HsF	Hoshab Fault
(9) MBT	Main Boundary Thrust	(31) NrF	Nai Rud Fault
(10) JhF	Jehlum Fault	(32) OnF	Oranch-Nal Fault
(11) BbF	Bagh Balakot Fault	(33) KtF	Kirther Fault
(12) PT	Panjal Fault	(34) MtF	Mekhter Fault
(13) RsF	Riasi Fault	(35) AjF	Anjira Fault
(14) HFT	Himalyan Frontal Thrust	(36) BgF	Bagh-Gawal Fault
(15) KmF	Khauri-Murat Fault	(37) MkFz	Murgha Kibzai Fault
(16) KbF	Kalabagh Fault	(38) KtF	Kotra Fault
(17) KsF	Khisor Fault	(39) KdF	Khude Fault
(18) PzF	Pezu Fault	(40) KRBT	Kirther Range Basement Fault
(19) KrF	Kurram Fault	(41) PrF	Pab Range Fault
(20) SRBF	Suleiman Range Basement Fault	(42) KtF	Kalat Fault
(21) GzF	Ghazaband Fault	(43) RwF	Rawat Fault
(22) KnF	Kingri Fault		

Global Navigation Satellite System (GNSS)

Global Navigation Satellite System (GNSS) is a network of satellites that provides highly precise positioning information through timing and orbital information. This positioning information is used to measure the movement of the earth surface within the range of millimeters. GNSS data is invaluable in understanding the behavior of faults, predicting future seismic activity, and assessing earthquake and landslide hazards.

To develop the GNSS permanent network all over the country, GSP is executing a PSDP Project entitled **"Pakistan National Research Program on Geological Hazards (Earthquakes & Landslides) Data Acquisition along Active Faults and Identification of Potential Landslide Hotspot Zones"**. The program aims to acquire data along active faults and identify potential hotspot zones in order to better understand the geological processes that lead to these hazards and develop strategies to reduce the risks associated with them.

Device Specification:

Trimble Alloy GNSS Receiver + GNSS-Ti Choke Ring Antenna

International GNSS Service (IGS): https://igs.org

Geological Survey of Pakistan: https://gsp.gov.pk

adnan_alam@gsp.gov.pk

0 62.5 125 250 375 500 Kilometers

Draft Map Version-03